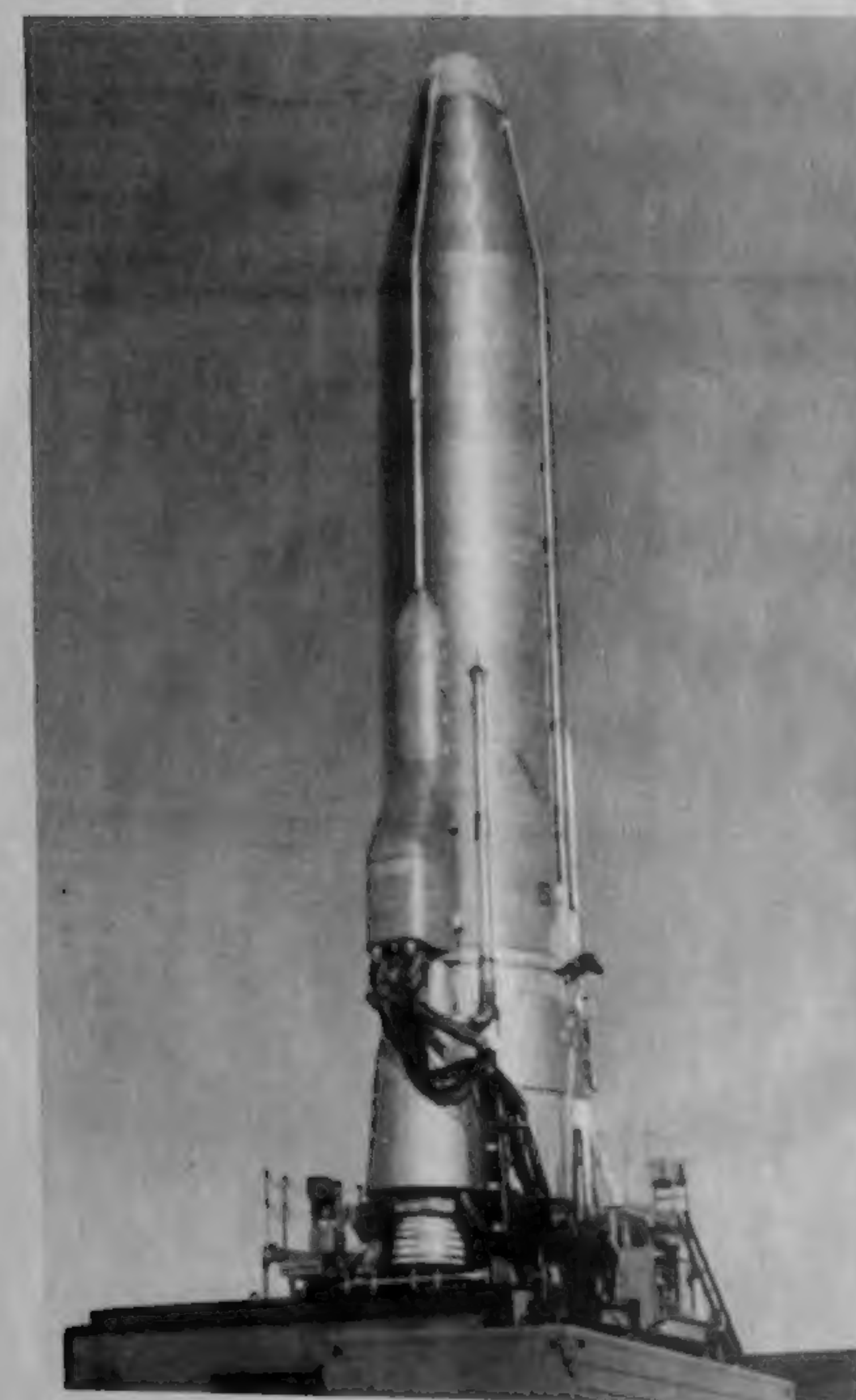
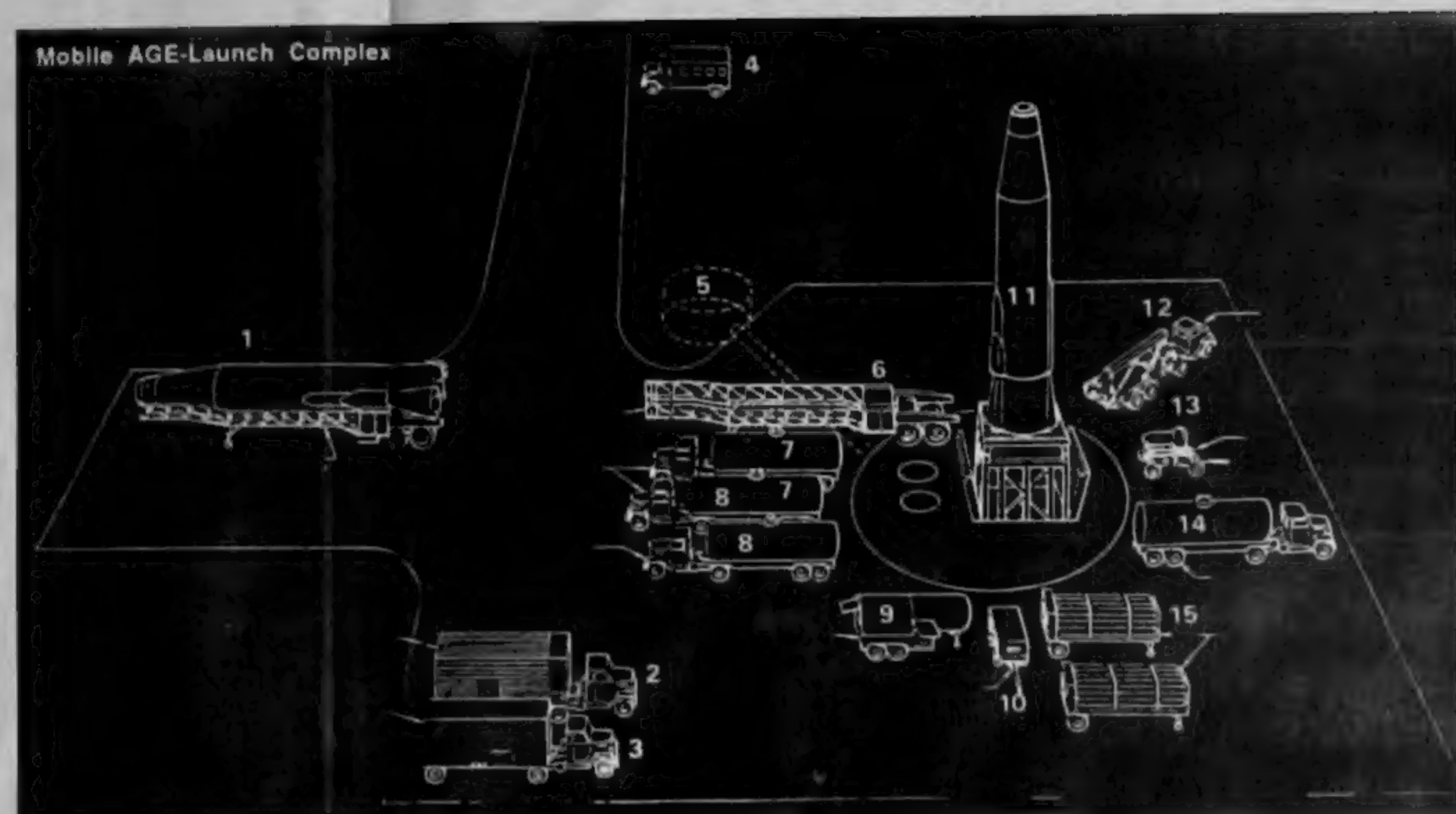


**Credits**  
 The following people and organizations have provided vital assistance and information to make Project Atlas possible.  
 Ginger Allen, Feinberg Library, SUNY at Plattsburgh  
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 Chevalier Machine Shop  
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 Elizabeth Folwell, Adirondack Life  
 Jack Hill, a former crewman of Atlas Missile Base  
 Mike Kulik, author  
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 Timothy Troy, New York Public Library  
 R. D. White, author of *Our Silent Silos*

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 Julie Stillman, Robert Werthamer, Calvert Wright  
**Project Advisors (Adirondack Region)**  
 James A. Kinley, Matt Foley, Jim Hotelling,  
 Bill Johnstone, Frank Owens

1. MISSILE ON TRAILER
2. ELECTRICAL CHECK-OUT VEHICLE
3. PNEUMATIC CHECK-OUT VEHICLE
4. MAINTENANCE CREW & SPARE PARTS
5. UNDERGROUND LAUNCH CONTROL CENTER
6. MISSILE TRAILER
7. LO2 TRAILER
8. LN2 TRAILER
9. N2 RECHARGER
10. HELIUM COMPRESSOR
11. SILO WITH MISSILE ON SURFACE
12. MISSILE ERECTOR
13. RE-ENTRY VEHICLE/ LIFT TRAILER
14. FUEL TRAILER
15. HELIUM TRAILER



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Atlas missile being loaded into the silo.  
 Courtesy of Jack Hill

Atlas missile in launching position.  
 Courtesy of Jack Hill

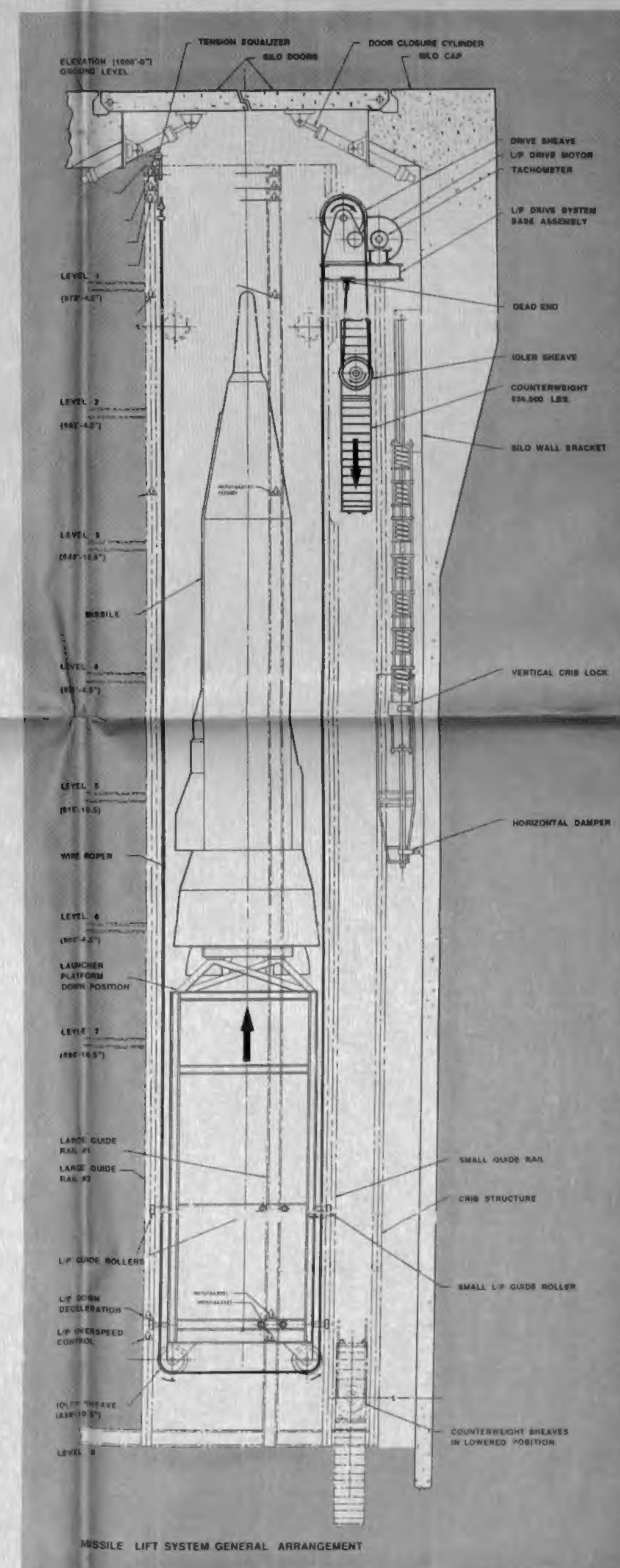
# PROJECT ATLAS

INTERNATIONAL COMPETITION/FORUM

## INTERNATIONAL COMPETITION/FORUM

# PROJECT ATLAS

Section of Atlas missile silo with the  
 missile in place.  
 Courtesy of Dr. Donald Ryan (3)



### PROJECT ATLAS?

The idea of initiating Project Atlas began a few years ago when I came across an article in *The New York Times* about a group of abandoned missile bases sited around Plattsburgh Air Force Base. The fact that they are now publicly owned meant that we could at last look into these facilities that were supposedly built for us yet were off-limits to us. And these monuments that once held the power of our existence should not be left to disappear without any critical examination.

*Technology governs changes in human affairs while culture guards continuity. Hence technology is always disruptive and creates crisis for culture.*  
 --Daniel Bell, "Technology, Nature and Society" in *The Winding Passage: Essays and Sociological Journeys 1960-1980* (Cambridge, Mass., 1980)

What compelled us to invent and harness such power? Are these aims indispensable for our progress toward the reputed age of immortality, or are they the final stroke of mortality for all ages? Are they in service to our own survival, or are we in service to their existence? These are some of the enduring questions at the balance between science and humanity, and perhaps we should address them once again through critical examination of these ballistic artifacts.

*Gravity pressed us down like worms, but a gravity-free environment would make the poor equal to rich, and be freer than a bird in flight.*  
 --Konstantin Tsiolkovsky, *Free Space* (1883)

Technology, the means that manifested these missiles, idealized the deliverance of unlimited goods and knowledge to its believers. And to many others the spirit of aeronautics personified a flight of liberation from the ever-present social hierarchy that weighed upon terrestrials like gravity. Together, these aspiring ideologies lead man to speculate that perhaps the conquest of outer space will lead to the resolution of earthly struggles.

*We must master the highest technology or be crushed.*  
 --V. I. Lenin, (1919)



However, practical and strategic application of technology ultimately prevailed over its ideological aspirations, as the funding for its development came increasingly from the military. Its products became the very measure of the success, legitimacy and security of the political and national entity, and therefore Sputnik was a crucial event in consolidating state sponsorship for research and development of technology for military use. Soon the prestige and reputation of nations depended on the magnitude, accuracy, distance and reliability of ballistic arms, particularly the ICBM, to build military industrialism into the largest single economic structure of this century. By enlisting society to largely dedicate itself to the research and development of nuclear and ballistic arms, the military became the dominant user of the technology. The public hardly controlled the directions and purposes of the technological pursuits; they were only a mass to be persuaded. In complying, the public was allowed to use various technological fall-outs and by-products that had already lost their innovative quality and value for the military use.

The panel [Technological Capabilities Panel of 1954 included James F. Killian, president of MIT; Lee A. DuBridge, president of Caltech; James B. Fisk, later president of Bell Labs; James Phinney Baxter III, president of Williams College; Edwin H. Land, inventor of the Polaroid camera] recommended the highest national priority for the USAF ICBM program, an ICBM suitable for land or shipboard launch, rapid construction of a distant early warning (DEW) line in the arctic, a strong and balanced research program on the interception and destruction of ballistic missiles, a greater application of science and technology to methods of fighting peripheral wars, and especially an increase in intelligence capabilities.

—Walter A. McDougall, *The Heavens and the Earth: A Political History of the Space Age*, New York (1985)

Under these conditions, Technocracy, the management of society by technical specialists and industrialists became the dominant polity that made both capitalism and communism more irrelevant and less distinguishable. For North America, the transformation of the cultural and physical landscape by the technocracy of ballistic weapons is far more encompassing than we are aware. Depopulation of urban cores to lessen massive deaths, dispersion of population to the suburbs to increase survival rates, the building of interstate highways for the mobility of arms and population, and open space and slum clearance for firebreaks and evacuation lanes were some of the many security measures that played a major part in the erosion of the finite delinition of the city since the Second World War.

Mitsushige, who was a photographer for the Hiroshima newspaper *Chungoku Shinbun*, found himself confronted at one point in his wandering with a street car full of dead people. "I went up to it and looked inside . . . It was jammed with people. They were all in normal positions, holding onto streetcar straps, sitting down still, just the way they would have been before the bomb went off. Except that all of them were leaning in the same direction away from the blast. And they were all burned black, a reddish black, and they were stiff."

—Jonathan Schell, from the Introduction to *At Work in the Field of the Bomb* by Robert Del Tredici, New York (1987)

Congregation with other humans implied the potential to become a target, and self-sufficient habitation was life insurance for doomsday. Physical proximity was unwanted, and permanent settlement suggested insecurity, all antithetical to the traditional form and sense of community, prescribing a nomadic way of life for our future. We are now more self-sustaining, individualized, alienated, fragmented, dispersed and mobile than ever before. And these may be the precise requirements to inhabit outer space, to live in a community of crews, drifting inside a self-sufficient capsule in a vast space, so separate and so distant from the nearest community of the same kind.

We are dealing with the death of optimism, rather than the death of art. All of that engineering elegance and efficiency born of rational, industrial solutions that was to make a better world . . . did not bring a new dawn. It brought an era of more gigantic problems in the nature of life and survival than history has even known. . . . Next to the reality that produces an ABM, the monuments of architects often seem like arbitrary toys.

—Ada Louise Huxtable, *A Bizzare Monuments to Non-Architecture* *The New York Times*, 14 December 1975

Even if doomsday never arrives, the radiation particles and their waste will long challenge our terrestrial habitability. This war against our environment is something that we, the allies and the enemies of all other wars have mutually constructed and are equally responsible for, potentially transforming this planetary shelter into our collective enemy. Together with various social conditions during the Cold War, the ballistic missile developments may once again serve their original mandate, the exploration of outer space. But this time they may become our habitat.

Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed. This world in arms is not spending money alone. It is spending the sweat of its laborers, the genius of its scientists, the hopes of its children. The cost of one modern heavy bomber is this: a modern brick school in more than 30 cities. It is two electric power plants, each serving a town of 60,000 population.

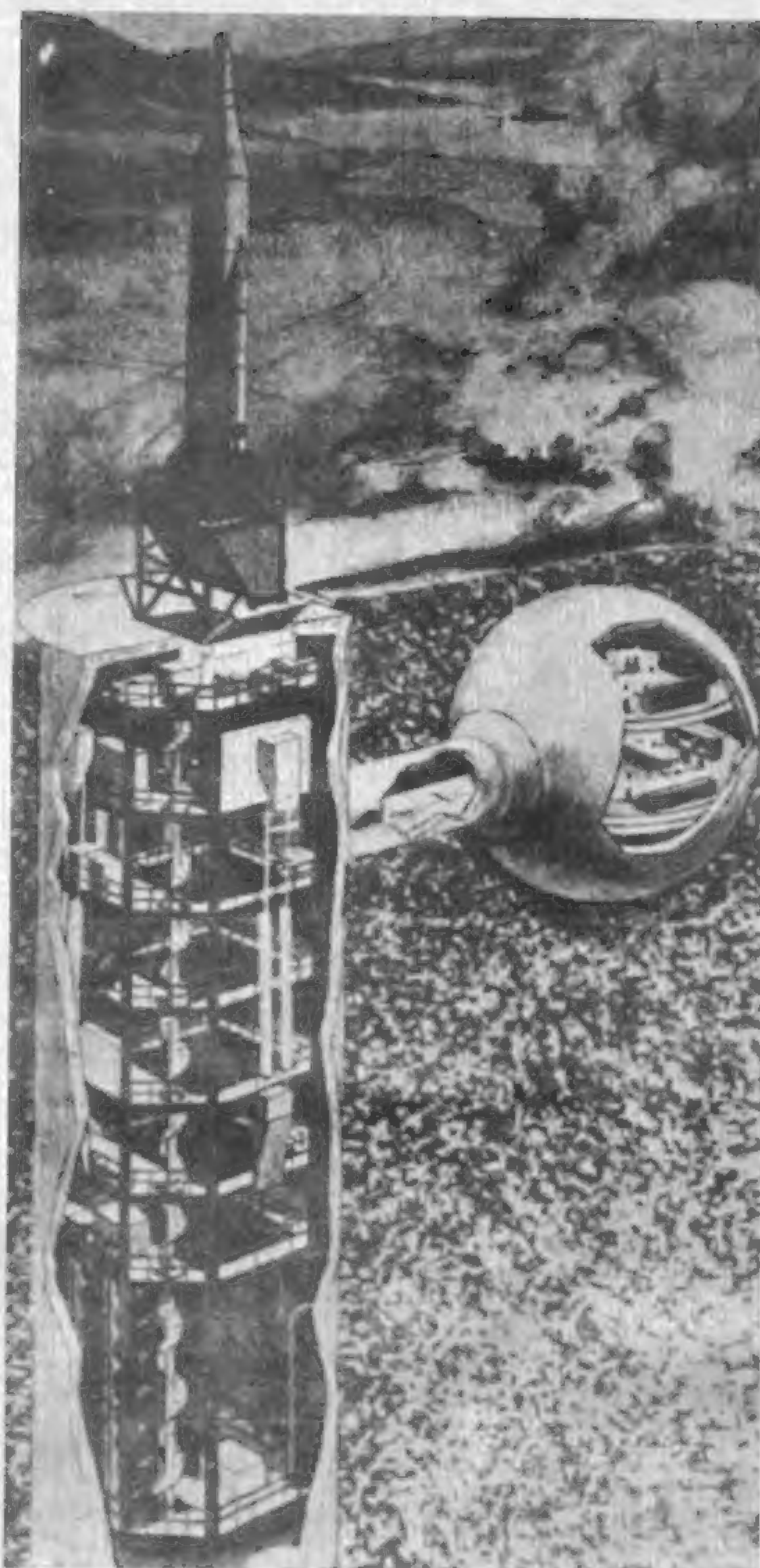
We pay for a single fighter plane with a half million bushels of wheat.

We pay for a single destroyer with new homes that could have housed more than 8,000 people.

This is not a way of life at all, in any true sense. Under the cloud of threatening war, it is humanity hanging from a cross of iron.

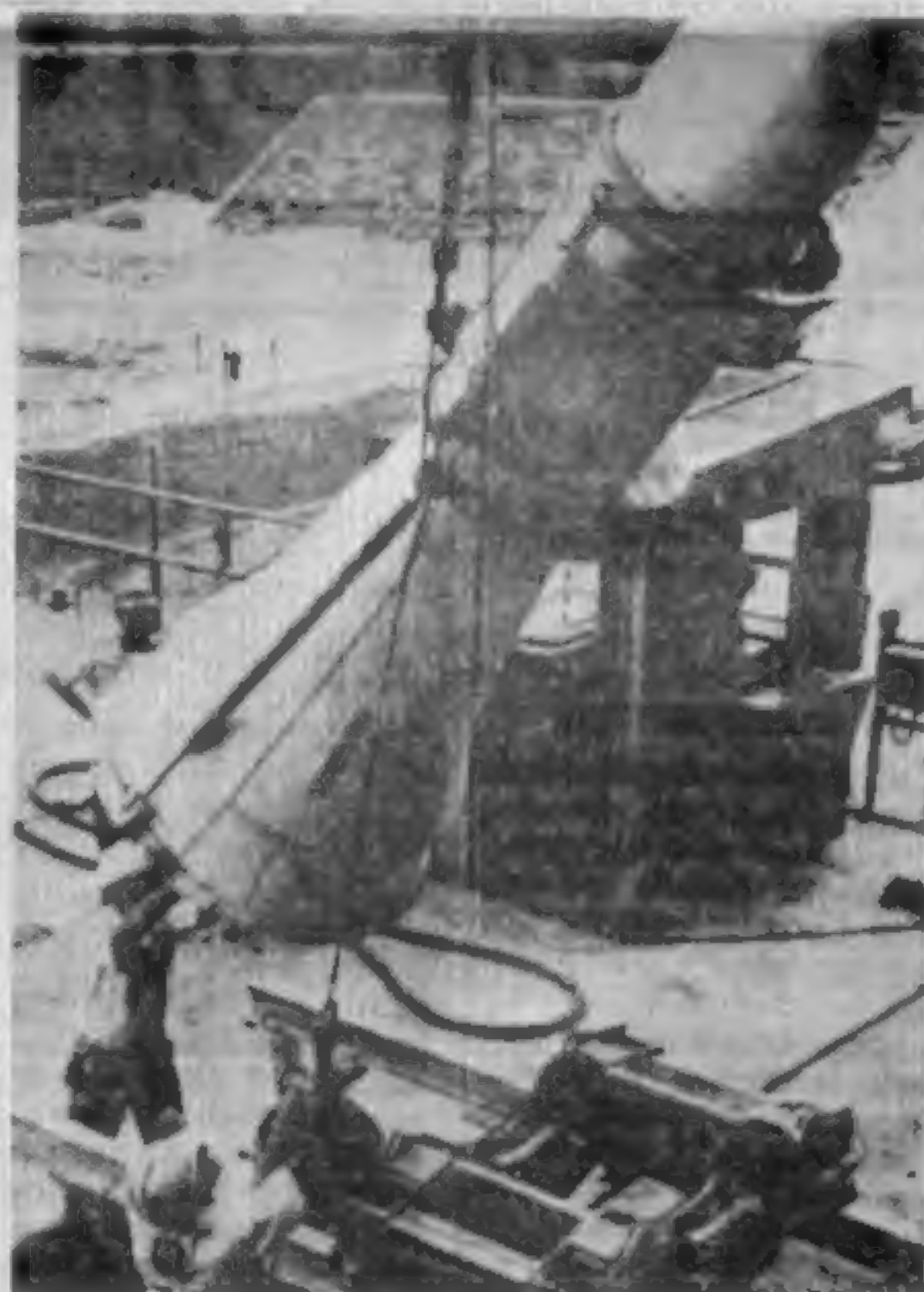
**SILo LAUNCH COMPLEX** This artist's conception shows how the Atlas Intercontinental Ballistic Missile will be placed in blastproof underground launchers, ringed Plattsburgh AFB in the near future. At left, the Atlas is in place within the vertical enclosure, or silo, protected by massive overhead doors. Within a few minutes after the "go" signal, an elevator raises the missile to the surface, the rocket engines are ignited, right, and the weapon is launched. The single underground blockhouse at left, containing launch consoles and crew housekeeping quarters, is the only other facility required at the Atlas Launch Complex. A structural steel framework within the silo support the elevator mechanism, and provides work platforms for servicing the missile. The silo structure is 52 feet in diameter and 174 feet deep. Each of the six Atlas "Silo" Squadrons will have 12 launchers, so widely dispersed that only one could be knocked out by an enemy bomb.

—Champlainer, Feb 23, 1962



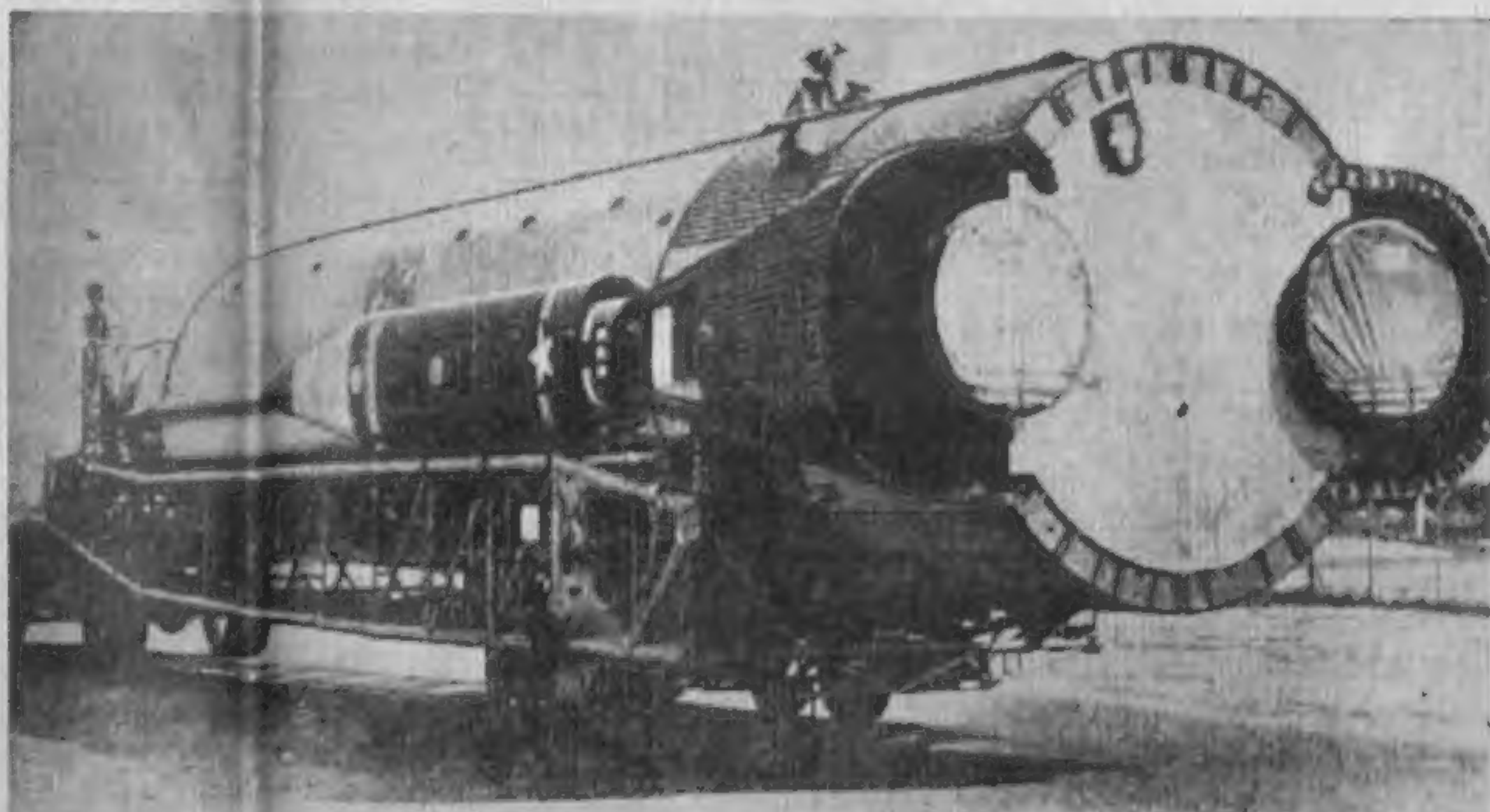
**THE SECRET IS OUT** The secret behind America's record 9,000-mile missile shoot from Cape Canaveral, Fla., to a point beyond the southern tip of Africa was a light-weight nose cone, shown being hoisted for its flight, it was revealed in Washington. A standard Atlas missile launched the new-type cone, capable of carrying as devastating nuclear warhead as older, heavier model. More super-distance launches are planned from both the east and west coast of the United States.

—Plattsburgh Press-Republican, May 24, 1960



**ATLAS CARRIER** The giant Atlas ICBM is shown on a new carrier built by Goodyear. The 74-foot transporter has a tillerman, just like a fire department ladder truck. The carrier can be stored in a C-124 Globemaster for delivery.

—Plattsburgh Press-Republican, June 4, 1960



symptomatic of this crisis. Unable to sustain permanent values, current architecture attempts either to signify value through the representation of buildings with historical pedigree or to achieve definition using little more than advanced building technology.

The uncertainty of the current condition, caused by the futility of nuclear weapons, threatens the complete paralysis of culture. Unless the future is restored to us, the only meaningful program for any cultural artifact, including architecture, is to expose the eschatological dilemma of the age.

—Marc Hacker

Excerpt from *Notes on a Changed World, Perspectives 21*, 1984. Courtesy of the author

## A BRIEF MILITARY HISTORY OF THE LAKE CHAMPLAIN VALLEY

The Lake Champlain Valley has had a long and varied military history. This 138 mile long lake joined with Lake George and the Hudson River to its south in New York State of the United States, and the Richelieu and St. Lawrence River to the north in Quebec, Canada forms one of the most important inland waterways in North America.

Prehistorically, the Native American tribes of the Algonquin and the Iroquois used the waterway for transportation and between them the land was disputed. It is understood that they set a boundary between their lands at Roche Region, now known as Split Rock in Essex, NY. In 1609 the French explorer Samuel de Champlain first discovered the Lake which today bears his name.

Next came the struggle to control the area and its lucrative fur trade. Iroquois along with Dutch and English settlers sent raiding parties north to the French settlement, and the French with their Algonquin allies sent war parties south to discourage settlements and keep the Valley free for the French. In 1731 the French first established a military outpost at Chimney Point, VT and within a year a stronger fortification across the Lake at Crown Point, NY. Fort St. Frederic, as it was known, was built on a rock and had high thick walls made of limestone. The high tower or Citadel inside the fort was built strong enough to resist bomb shells. The fort was well stocked with 15th Century war surplus cannon and balls from the old Country. Twenty-five years later the French further strengthened their hold on the Valley and built another fort at Ticonderoga, NY. The British countered by building Fort William Henry at the South end of Lake George. The skirmishes grew in size. In July of 1758 the British General Abercrombie assembled over 15,000 troops, at this time the largest ever in North America, and tried to capture the French fort at Ticonderoga. Some 2,000 died in a vain attempt to storm the breastworks and to this day the Scottish Highlanders of the 42nd Black Watch count this a one of their bloodiest engagements. A year later the British came North again. The French, who were vastly outnumbered, destroyed their own forts and left the field. The British, now in control of the main route to Canada, built the largest fort in North America at that time at Crown Point. Before it was finished the French and Indian War came to a climax in Canada with the fall of Quebec and the capture of Montreal.

Conflict next broke out on May 10th, 1775 when Ethan Allen and the Green Mountain boys of the American revolutionary forces captured the British outpost at Fort Ticonderoga. Meanwhile the British had Boston under siege. Cannon from the newly captured fortifications at Crown Point and Ticonderoga were transported during the dead of winter to the city over 300 miles away. With the arrival of the large guns from the Champlain Valley the British took to their ships and the siege was lifted. During the next few years the Champlain Valley was to be the scene of many armed conflicts in the War of Independence.

Again in the War of 1812, the second war of independence from the British, the Champlain Valley saw many conflicts. After a thunderous and bloody cannonade at the Battle of Plattsburgh Bay in September of 1814, Commodore Macdonough of the American Navy received the surrender of the British fleet on the Lake. The last time that big guns ever fired on Lake Champlain was on October 2nd of the same year when the gunboats "Saratoga" and "Confiance" made a salute to the city of Burlington, VT, as they sailed south to storage at Whitehall, NY. In order to strengthen the American position against the British along the Canadian border on the Lake, in 1816 Fort Blunder was begun. It is so called because in 1818 the American officers in charge of construction found the Fort was built on Canadian soil. Construction immediately ceased, and it wasn't until 1843 that Fort Montgomery was begun on the same site after the Webster-Ashburton Treaty made the necessary boundary adjustment. The fortification was finally abandoned in 1870 and was dismantled in 1908.

In 1838 the United State government erected extensive army barracks in the city of Plattsburgh, NY. Troops from this point were sent into combat in Mexico in 1846 and to Cuba in 1898. In 1915 the first series of training camps for officers, the "Plattsburgh Idea" promoted by Major Gen. Wood, was developed at the reservation. Training essential to a competent officer of the line, such as trench warfare and the science of artillery and infantry, was crowded into a three month period. In 1939, 40,000 men participated in "war game" or military maneuvers that were held by the U.S. First Army in the vicinity of Plattsburgh. A naval training station opened in 1944 with 2,000 apprentice seamen participating. In June of 1945 the Plattsburgh Barracks were turned into one of the finest military convalescent hospitals in the U.S. A U.S. Air Force Base was established in February of 1952 in Plattsburgh and it included the old military installation. Since 1955 there have been established a Strategic Aerospace Division, a Bombardment Wing, an Air Refueling Wing, a Strategic Missile Squadron, a Combat Support Group, and a Medical Group at the base.

The history of this strategic inland waterway includes the use deployment of armaments as simple as bows and arrows to some of the more sophisticated nuclear weaponry of our time. With the end of the Cold War, numbers of United States military bases, personnel and weapons have been cut back. There is no clear future for the base at Plattsburgh as it too may become a testimony to the military history of the Lake Champlain Valley.

—Jim Kinley

Essex County Historian and Director of Adirondack Center Museum, Elizabethtown, New York.



Top of the round concrete missile silo with the doors closed. Clayburg, New York, 1989. Photo by Kyong Park



Concrete top of an access to below. Clayburg, New York, 1989. Photo by Kyong Park



Concrete protrusion from below. Au Sable Falls, New York, 1989. Photo by Kyong Park

Metal cover over an access to below. Clayburg, New York, 1989. Photo by Kyong Park



Concrete protrusions from below. Clayburg, New York, 1989. Photo by Kyong Park





# PROJECT ATLAS

## INTERNATIONAL COMPETITION/FORUM

Project Atlas is an international competition and forum organized by STOREFRONT FOR ART AND ARCHITECTURE that is open to the participation of individual artists, architects, groups or interested people in any field. Twelve obsolete and abandoned Atlas missile bases remain in the region surrounding Plattsburgh Air Force Base, at the edge of Lake Champlain and the Adirondack Mountains, in New York State. These bases were underground silos to house and launch the Atlas, the first of a series of American InterContinental Ballistic Missiles capable of delivering a nuclear warhead at the distance of more than 6,000 miles. In the early 60's a total of six complexes of similar design were built throughout the United States. The Plattsburgh complex was completed in 1962 and deactivated in 1965.

As a technological marvel, they may be the most singular remnants of our faith in human progress through science. But as military hardware, they meant denial of the future, dismissal of the past and uncertainty in the present. As instruments of destruction, they postulated the Global War, and as systems of communication, they realized the Global Village. They are the symbol of contradictions and enigmas of our society, straddled between hope and fear. Comparable to Stonehenge, the great Pyramids and the Great Wall, they are the artifacts that may come to define the 20th century.

Today just as these missile bases are obsolete, so may be the ideology of the society that built them. Recent erosions of political polarities and the ending of the Cold War will further the demise of military industrialism. Today, we are facing unprecedented conditions for radical change in the political, economic and industrial structures, offering phenomenal opportunities for generating a new era for society, at the dawn of a new century and a new millennium.

The purpose of Project Atlas is the transformation of an artifact; by altering, adding to, or renovating the abandoned missile bases in physical form or in conceptual terms. Through an emblem of the past, this transformation should project social, cultural and aesthetic visions of the future.

**QUALIFICATION:** Individual artist, architect, group or interested people in any field.

**REGISTRATION:** You must register by May 15, 1990. Please send name, address and the \$10 registration fee payable to STOREFRONT FOR ART AND ARCHITECTURE, 97 Kenmare Street, New York, N.Y. 10012, U.S.A.

**SUBMISSION DEADLINE:** Work must arrive at STOREFRONT no earlier than June 1 and no later than June 15, 1990. Please send the work to STOREFRONT FOR ART AND ARCHITECTURE, 97 Kenmare Street, New York, N.Y. 10012, U.S.A.

**JURY DATE:** All works will be reviewed by the Project Jury on June 23-24, 1990. The jury will select works to be included in the exhibition and catalogue.

**PROJECT JURY:** Vito Accorci, Neil Denari, Elizabeth Diller, Phyllis Lamberi, Kate Linker, Patricia Phillips, Michael Sorkin, Krzysztof Wodiczko, Lebbeus Woods

**EXHIBITIONS:** Works selected by the jury will be exhibited at two sites in July-August, 1990: in the Adirondack Center Museum, Elizabethtown, New York and Clinton County Arts Council gallery, Plattsburgh, New York. In September 13-October 13 the works will be exhibited together at STOREFRONT. Future exhibition may be possible in Canada, West Germany, and other sites are being discussed.

**CATALOG:** Selected works, Juror's comments and essays will be published by STOREFRONT.

**AWARDS:** There will be no monetary awards or any commissions to the entrants in this project. Although it is identified as a competition, the purpose of the project is only to create a forum.

**STANDARD FORMAT OF WORKS:** Two dimensional works should be no larger than 6 square feet and three dimensional works should limit volume to 1 cubic foot. Because the exhibition will travel to different locations for sometime, we request your work and packaging be as light as possible. All two dimensional works must be dry-mounted, or by other permanent mounting systems, on 3/8" thick boards, and should not exceed 4 feet in one dimension. Do not mount with spray adhesive or spray photo-mounts. Do not mount on wood or metal boards. All three dimensional works must be crated in light boxes with proper protection inside through the use of styrofoam boards or rubber padding. Do not use styrofoam ball or other loose protectives. All three dimensional works should not exceed 2 feet in any one dimension. Any two dimensional works that weighs more than 5 pounds, three dimensional works more than 10 pounds, or exceed any other requirements listed above will be disqualified.

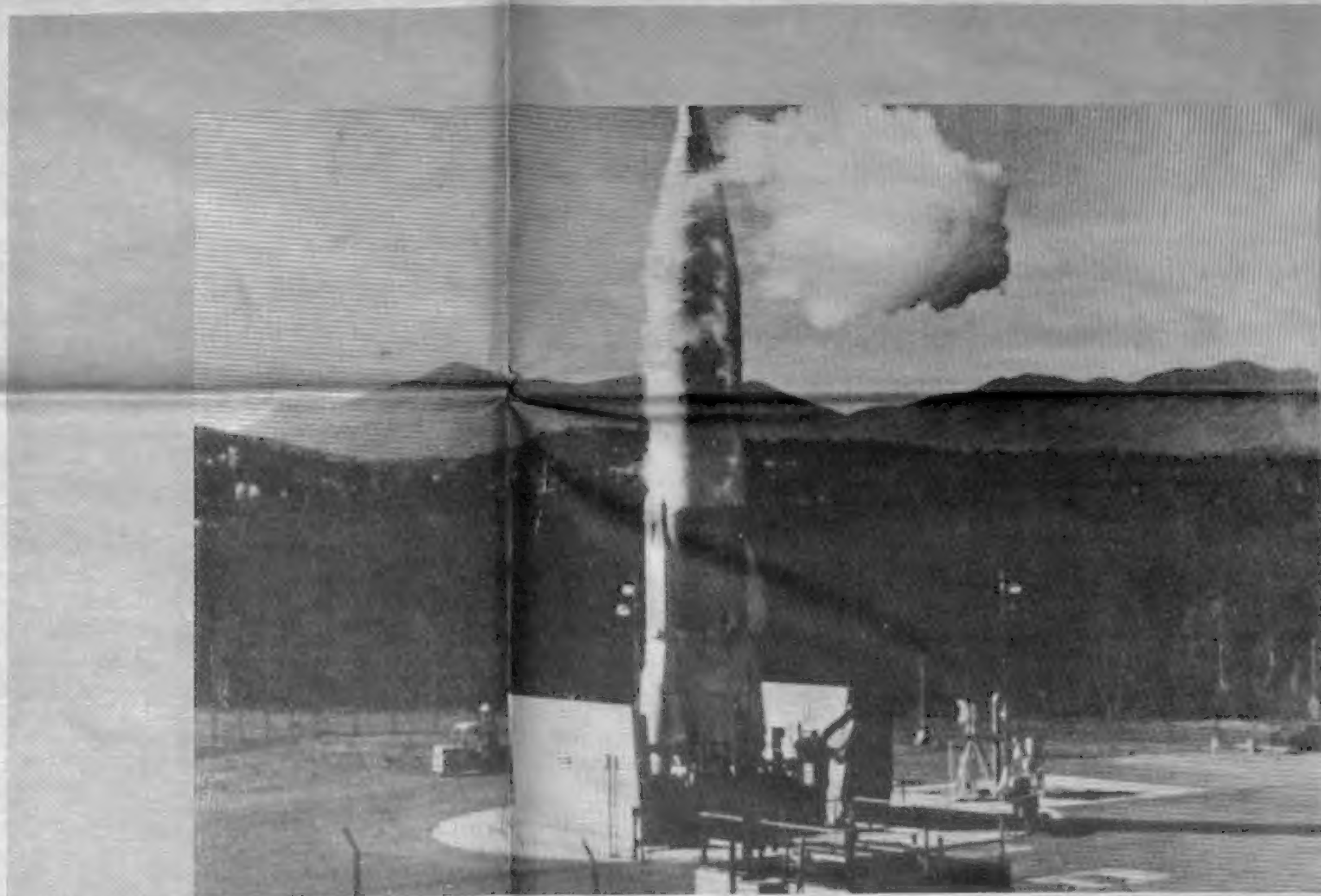
**OTHER FORMAT OF WORKS:** If you are interested in submitting works in other medium than the standard format listed above, you must receive an approval from the Project Committee. Please send us a letter describing your medium and work to STOREFRONT no later than May, 1, 1990.

**STATEMENT OF WORKS:** Entrants are invited to include a type written statement corresponding to the work (in English). This is optional, and should be limited to 200 words or less. The statement should be enclosed in the same envelope that contains your identification of work, and the entrant's name should not appear on the statement. Although the presence of a statement will not have any bearing on the selection of your work for the exhibition, it may enhance the understanding of your work by the jurors and the public. The jurors will read your statement only at their request. The statement will be exhibited only on the request of the jurors.

**IDENTIFICATION OF WORKS:** The works submitted will be judged anonymously. No identification or name should appear on the work itself. Please type your name, address and telephone number on a 6 1/2" x 11" paper sealed in an envelope, and it must be sent with the work.

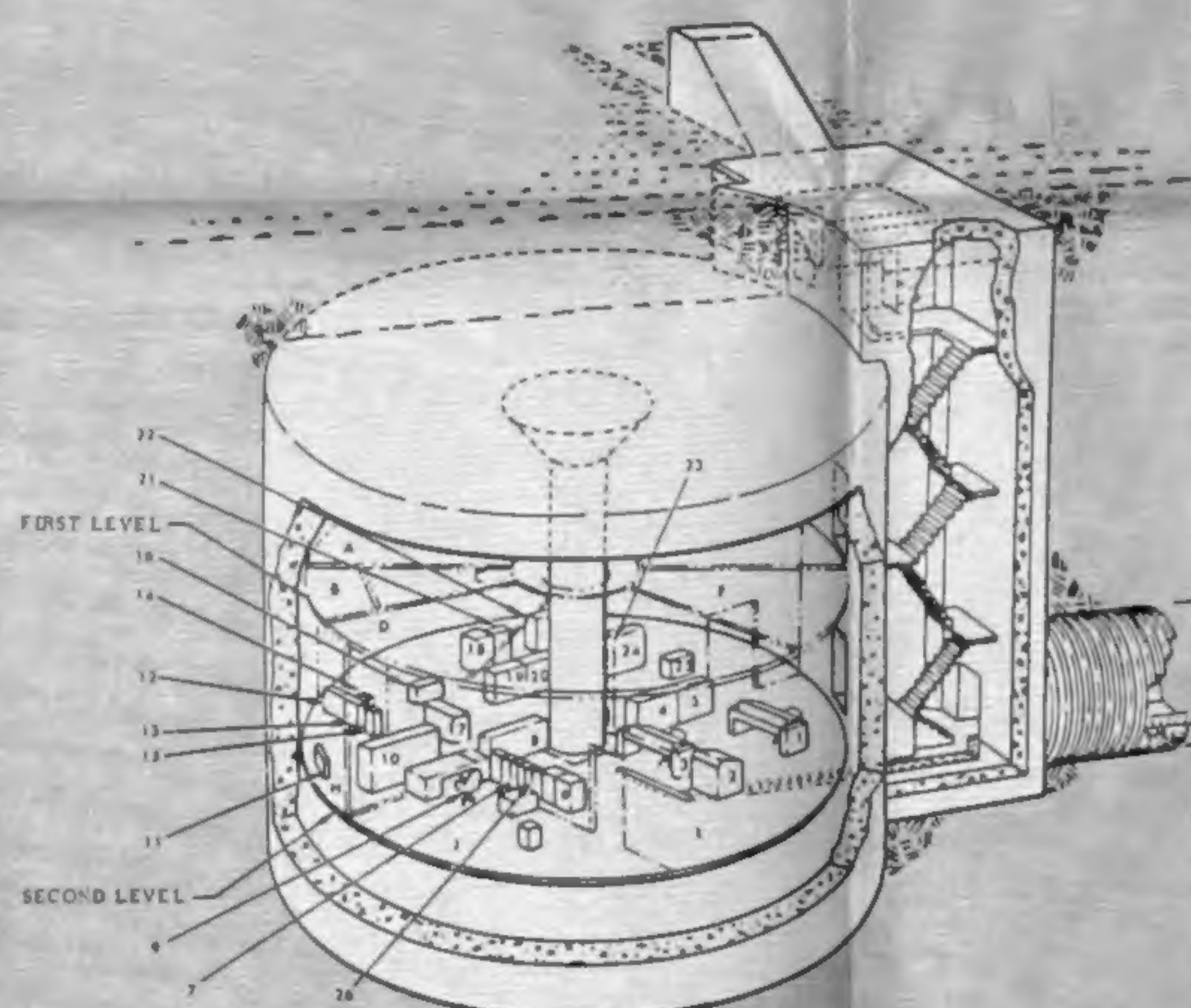
**RIGHTS:** All works submitted to Project Atlas will become the property of STOREFRONT. STOREFRONT will also have full rights to exhibit, publish and archive all works. Therefore, we suggest that proper documentation of the work be completed for your own use, prior to the submission. However, works that were not selected can be returned at your request. Furthermore, the selected works can also be returned to the entrants by request, but only after the completion of all exhibitions and publication. Return of all works will be at the cost of entrants. STOREFRONT is not responsible for the damage or loss of work.

**FUNDING:** Project Atlas is partially funded by the Graham Foundation for Advanced Studies in the Fine Arts and the New York State Council on the Arts. An individual grant from National Endowment for the Arts was used to research and document these abandoned missile bases, and to develop the program of Project Atlas.



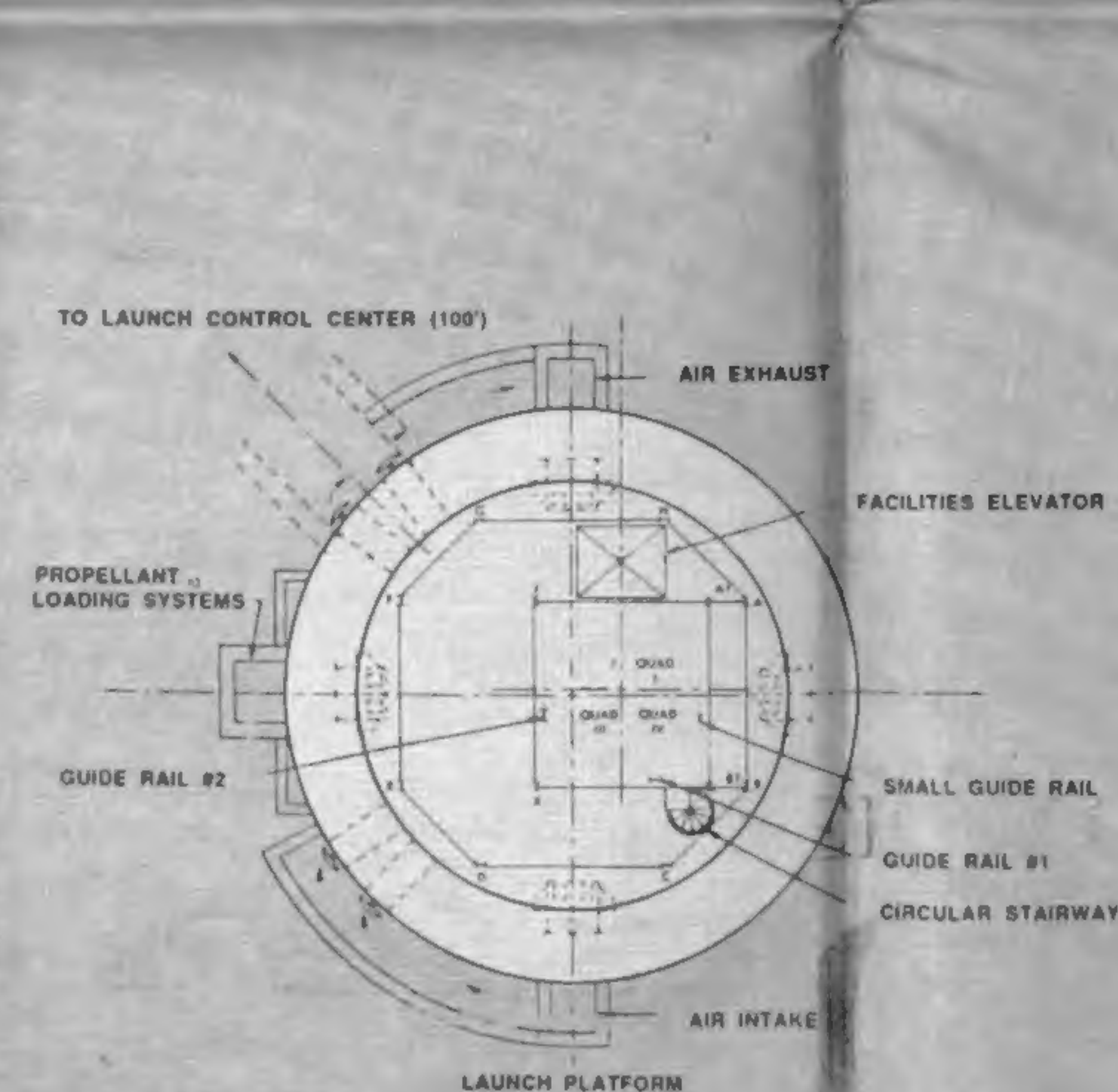
View of unknown missile site near Plattsburgh Air Force Base with the high peaks of Adirondack Mountains at the background. The vapor emission at the upper section of the missile is due to the evaporation of liquid oxygen, one of the two elements of liquid fuel mixture that powers the Atlas missiles.  
—Courtesy of Jack Hill

Axonometric drawing of Atlas missile silo  
Courtesy of Dr. Donald Ryan (1)  
Plan of Atlas missile silo  
Courtesy of Dr. Donald Ryan (2)

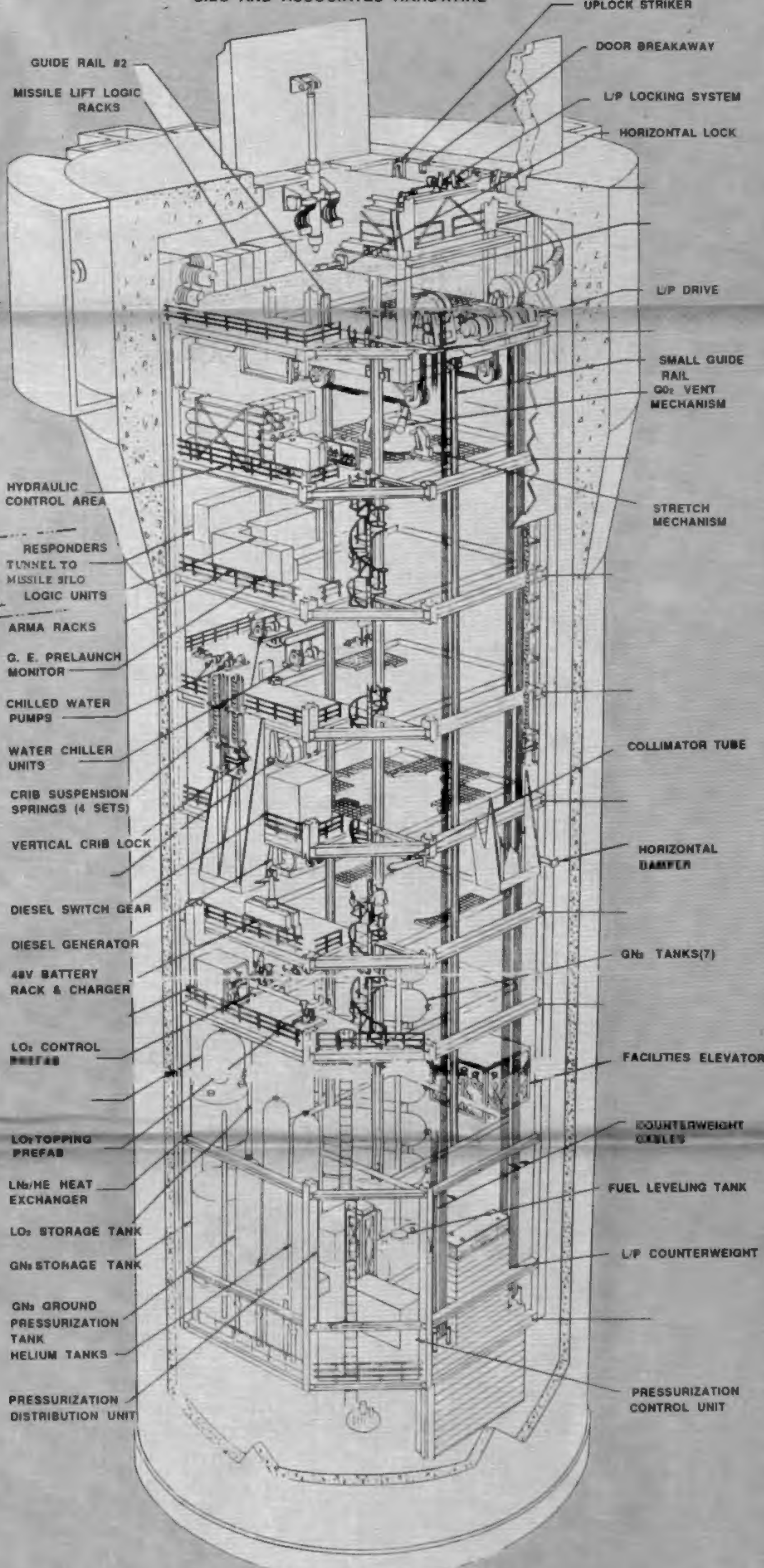


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| 1 ALTERNATE COMMAND CONSOLE                  | 21 MISCELLANEOUS RELAY TRACK           |
| 2 IRSS CONSOLE (TEST AND TRAINING SITE ONLY) | 22 X-MINUS TIME CLOCK BAY              |
| 3 LAUNCH CONTROL CONSOLE                     | 23 REGISTER BAY                        |
| 4 FACILITY REMOTE CONTROL PANEL              | 24 TRANSLATOR BAY                      |
| 5 POWER PLANT REMOTE CONTROL PANEL           | 25 STRATEGIC ALERTING SOUND SYSTEM BAY |
| 6 TV MONITOR                                 | 26 LIGHTING DISTRIBUTION TRANSFORMER   |
| 7 FIRE ALARM PANEL                           |  |
| 8 EXIT AND EMERGENCY LIGHTING PANEL          | <b>FIRST LEVEL</b>                     |
| 9 NORMAL LIGHTING PANEL                      | A READY ROOM AND STORAGE               |
| 10 LIGHTING DISTRIBUTION PANEL               | B JANITOR'S ROOM                       |
| 11 MOTOR CONTROL CENTER                      | C MEDICAL SUPPLY ROOM                  |
| 12 OFFICE EQUIPMENT                          | D TOILET                               |
| 13 BATTERIES AND BATTERY RACK                | E KITCHEN AND DINING                   |
| 14 TELEPHONE TERMINAL CABINET                | F POWER DISTRIBUTION ROOM              |
| 15 COMMUNICATIONS POWER DISTRIBUTION PANEL   | G HALL                                 |
| 16 COMMUNICATIONS EQUIPMENT PANEL B          | <b>SECOND LEVEL</b>                    |
| 17 CHARGER BAY                               | H BATTERY ROOM                         |
| 18 MISCELLANEOUS TRUNK BAY (DIRECT LINE)     | I OFFICE                               |
| 19 MAIN DISTRIBUTION FRAME                   | K COMMUNICATIONS EQUIPMENT ROOM        |
| 20 POWER BOARD                               | L LAUNCH CONTROL ROOM                  |
| 21 FINDER CONNECTOR BAY                      |  |
| 22 SELECTION BAY                             |  |

SILO LAUNCH CONTROL CENTER



SILO AND ASSOCIATED HARDWARE



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## AN EARLY MORNING TEXT ON 'ATLAS OBSOLETE'

The term, 'built-in obsolescence,' applies to what? "Everything" it would seem. Everything has both a built-in capacity to wear out and a built-in capacity to become obsolete. In our time, the tendency to become obsolete has far outstripped the tendency to wear out. On the one hand this leaves us with functional objects and systems which are no longer functional, a morose statement that, nevertheless, is modern civilized fact. Stereos, Televisions, Typewriters, Ships, Cars, Buildings, Motors, Medicines, Pesticides, Bombs, Teaching Methods, Financial Products, Genetically altered bacteria. On the other hand, we have given ourselves a system of object Nostalgia that seems to have replaced religious icons; for the love of a broken truck.

My parents liked to tell me the story of visiting a military air base with 350 aircraft sitting quietly in rows, obsolete the day they came off the production line. While the phenomena of rapid obsolescence (by history's standard) is pervasive, it is more spectacular in the case of military paraphernalia. The expenses, technology, and effort discarded make for such absurd tales and images that they bring wonder to the eyes of a child; the obsolescence is a story unto itself. If it were only for children, it might comprise a fairy tale (with a moral, no doubt). Since the phenomena belongs primarily to the adult world (toys being a significant, notable exception), we may interpret humongous military obsolescence as one of the potent mythological phenomena of our time. In this respect, the abandoned Atlas Missile silos are shrines to that myth, representative locations of our national spiritual heritage. Perhaps more so than a church.

Borders between countries were invented some centuries ago, firmly instituted, and are now in the process of erosion: a type of Obsolescence. Indications are in both conspicuous and surreptitious fields. Economic flow of goods, services, and contraband. Flow of the Arts with traveling dance companies, publications of anything and everything in several languages, and television. In 'Military Science' there remain intact concepts of border, such as the covert operation, treating the border of a country much like a cell wall into which the intruder is injected. The Missile is of the same conception, very much like a syringe. Concurrently, in the case of the missile in 'Military Science,' there is an indication of the erosion of borders and an eventual Mapping of the Global Network. External to the missile's destructive capability, the precise science of missile guidance relies on mapping the globe, geographically, magnetically, in rotation, with respect to the sun, stars, and moon. This poetic is secretly imbedded in this blundering, destructive missile beast; a source of potentially infinite spiritual and cultural energy.

-David Hanawalt  
Project Committee Member

## NOTES ON A CHANGED WORLD (excerpts)

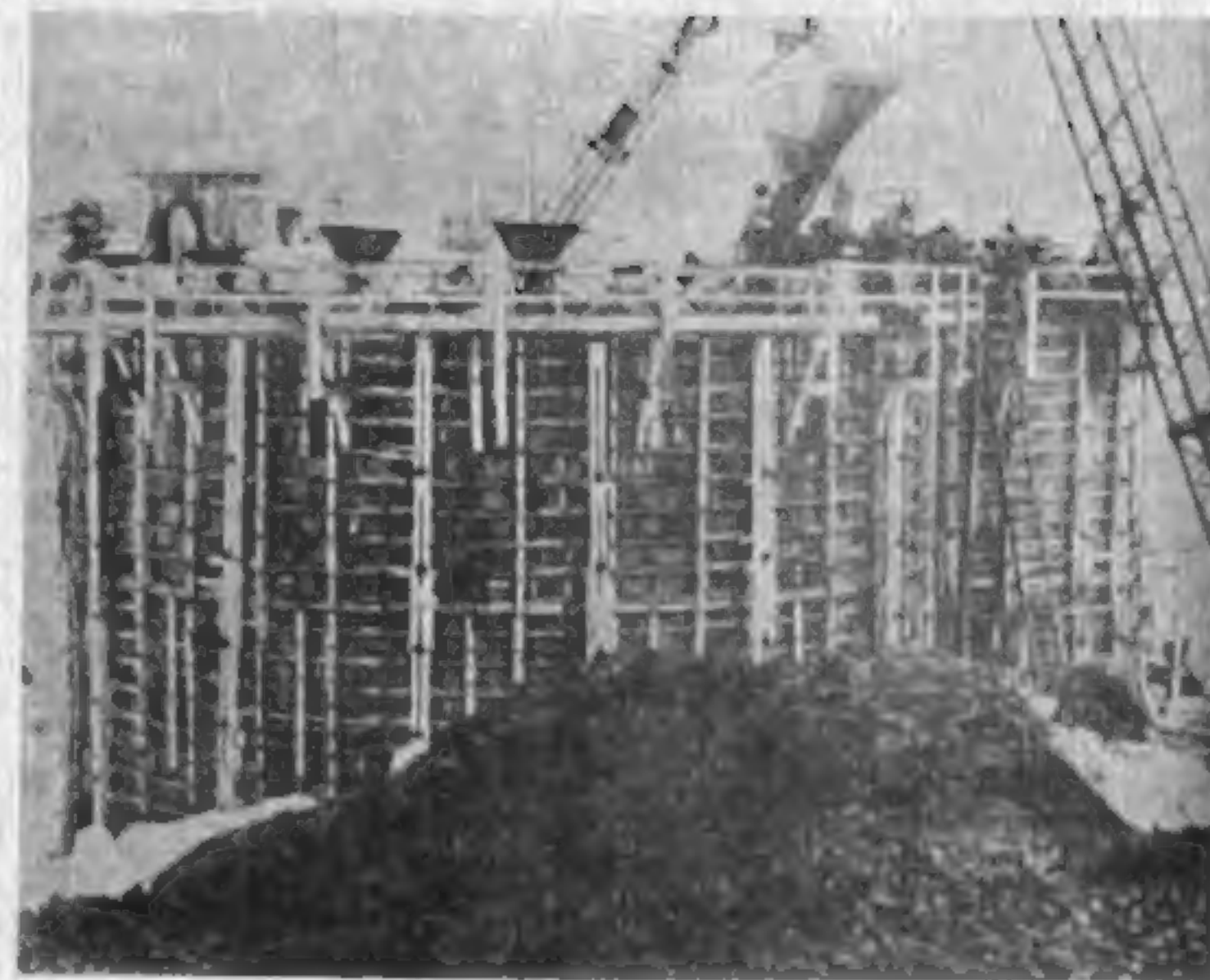
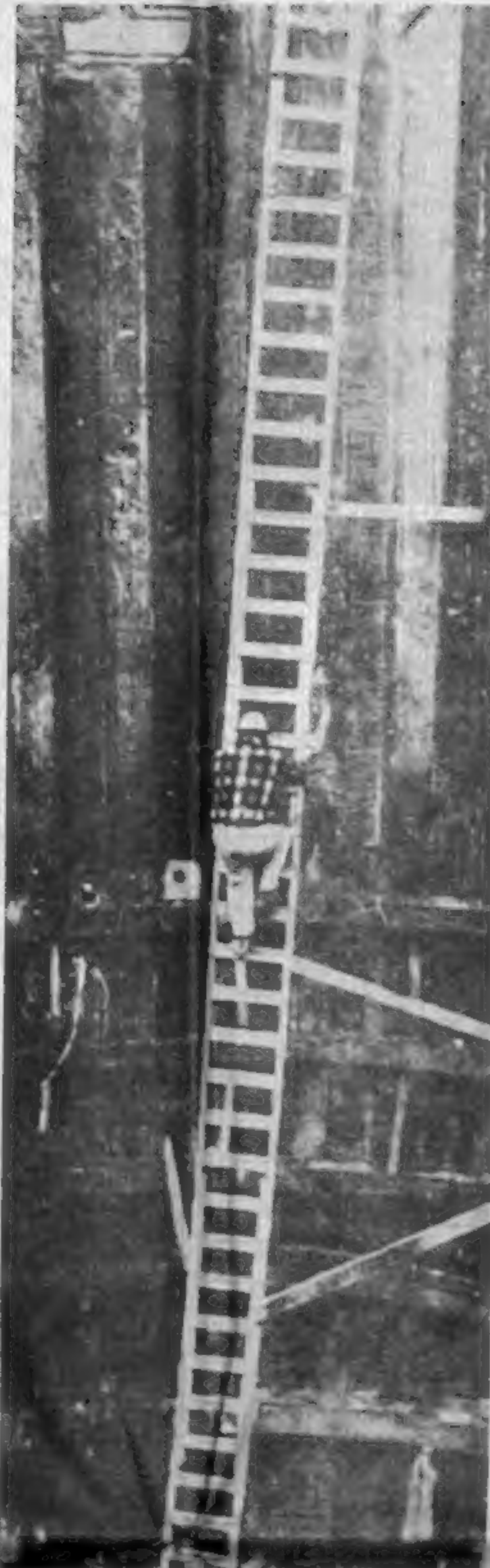
The fracturing and disintegration of the city that began with the perfection of ballistics and the advanced development of roads and railways has been greatly accelerated by the defense requirements of the nuclear age. As the only means of passive defense against nuclear attack, dispersion has become the tenet of an antiurban ideology, causing the erosion of the public realm through direct and indirect means. The city can no longer be the site for immortality. It is now setting for organized suicide, identified as the ground-zero target. Endless expansion and maximized dispersion understood to be the only method for minimizing the damage of a single nuclear bomb; they are the sole mean of survival. As the spatial dimension of war expanded, however, the temporal dimension decreased. The needs of the military have come to exceed the available environmental resources: the limits of warfare have been extended into space, but target dispersal is limited by the boundaries of the state. Today the number and power of nuclear weapons has outstripped the ability of the military to defend targets through dispersion. An environment configured on the basis of defense has become irrelevant, the antiurban ideology that caused the dissolution of the finite city has become impotent in the face of current nuclear arsenals. This erosion of the finite city, of organized remembrance and public life, signifies in every sense a crisis in the common world.

This crisis can be understood through the profound effects of military objects and related hardware on the nature of civilian life. In the present day a process has been set in motion, the result of which is unpredictable; uncertainty has become the principal characteristic of human affairs. The denial of a certain future has belied the possibility of transcendence. In *The Fate of the Earth* [1982] Jonathan Schell points out that the present is a fulcrum on which the future and the past are balanced. If the capacity to believe in the future is lost, any relation to the past must also fall away. In the nuclear age the future has collapsed into the present with the threat of imminent destruction. The ability of humanity to cancel its own future and the concomitant loss of certainty have radically altered the human condition.

The loss of a certain future brought about by nuclear weapons has locked objects into the present, denying them any possible relation to the pattern of cultural succession and rupturing their relation to precedent and their reason for permanence. An artifact as an end in itself is meaningless in the absence of any permanent measures or values that can precede and outlast its production. The end has collapsed into the means; objects can no longer be valued for their intended use but only as means to further production. The process of production thus becomes the only constant that can have value. The durable object is rendered obsolete, its conservation being a greater impediment to the cycle of production and consumption than its destruction.

The incertitude of the present moment, suspended between an irremediable past and a precarious future, undermines the purpose of any lasting endeavor such as architecture. When doubt is cast on the simple possibility of living out one's own life, let alone the possibility of an enduring cultural succession—the culture value of the architectural object become questionable. If architecture can no longer exist as a resolution of memory and possible future, any pretense to the building of architecture as such must be suspect.

The current fascination with ephemeral imagery, the primacy of the process of building over any ideal or permanent architectural product, and the loss of belief in building for posterity, are all



**CONTROL CENTER** Men are concreting walls of the launch control center at Clayburg. When it's complete it will be underground. In it will live the crew for the Atlas missile there.  
—Photo by Nancy Kane, Plattsburgh Press-Republican, Feb. 9, 1961

**UP THE WALL** A workman at Sugar Bush climbs out of the silo (under construction) the hard way rather than wait for a "cage" to be dropped down to him.  
—Photo by Nancy Kane, Plattsburgh Press-Republican, Feb. 9, 1961

**WET HOLE** Workmen at the Sugar Bush site stand knee-deep in water while excavation continues. Quicksand had to be sealed off at this site.  
—Photo by Nancy Kane, Plattsburgh Press-Republican, Feb. 9, 1961



**View of silo doors**, Swanton, Vermont, 1989  
Photo by Kyong Park

**View of silo opening with door at background.** Silo is presently filled with water, due to absence of water pumps and electricity.  
Swanton, Vermont, 1989  
Photo by Kyong Park



-Dwight D. Eisenhower, *Chance for Peace*, 1953

But we are still inhabitants of this planet and possessors of technology. And if the recent global changes of political boundary will transfer the means to conduct world conflicts and collaborations from military to economic forces, then the ideologies and institutions of military industrialism will also be obsolete. Consequent possibilities are phenomenal opportunities for reconsideration of the present social structures and ideologies, and perhaps the reacquisition of control over our destiny from the lull of the nuclear age. Equally, ballistic missiles stripped of nuclear arms can symbolize a liberation of technology from the military, implying that technology can still be a positive instrument for social betterment.

When she was 12 years old, Sadako Sasaki contracted leukemia from earlier exposure to the atomic bomb. She did not wish to die. She refused all painkilling medication and took literally a Japanese proverb that says, "If you fold 1,000 paper cranes, you will get whatever you wish." She folded 645 of the tiny birds before she died.  
—Robert Del Tredici, *AT WORK IN THE FIELD OF THE BOMB*, New York, 1987

Thus our future is bound to the question of how we will cope with our past. Perhaps these ballistic missiles are a means to expose some of the predicaments, and ask how we can transform the contaminated landscapes and toxic will of the past. In my mind, this is the basic notion of Project Atlas. Through the transformation of an artifact, art and architecture can intervene to shape or contradict the forces that make the world, and define new and positive agendas.

-Kyong Park  
Founder/Director of STOREFRONT

## OUR SILENT SILOS (Excerpts)

October 1962. President John F. Kennedy orders the Soviets to remove their medium range missiles from Cuba after U.S. intelligence detects their deployment. A blockade of the island ensures and the world is brought to the brink of nuclear war in the worst superpower confrontation to date.

In the Adirondacks, Air Force technicians of the 556th Strategic Missile Squadron hurry to make the last few missile sites operational. The Atlas InterContinental Ballistic Missile (ICBM) was America's newest strategic weapon capable of delivering a nuclear warhead to a target 6,000 miles away. The missiles, housed in 12 sites around their Plattsburgh Air Force Base headquarters, were the only underground silos ever built east of the Mississippi River. Fortunately, the Russians removed their rockets and everyone breathed easier.

The \$300 million dollar construction and operation of the twelve North Country sites, ten in New York State and two in Vermont, made it one of the largest projects undertaken in the region, employing some 770 workers, exceeded only by the building of the St. Lawrence Seaway. Seven of the New York sites were within the Adirondack Park; Au Sable Forks, Chazy Lake, Clayburg, Harrigan Corners, Lewis, Sugarbush and Willsboro.

Construction began in July of 1960. Each site consisted of a hardened concrete silo 174 feet deep and 52 feet wide, with an access tunnel to a rounded, two-story control center. Two massive, lead-filled doors covered the top of the silo and the internal metal framework within the concrete shell. Both the silo and the control center were mounted on giant springs to absorb the shock of anything but a direct hit by an atomic bomb. More than 8,000 cubic yards of concrete were poured into each location.

Richard C. Beaulieu of Massena, the construction foreman who sunk the footings and poured the forms for six of these sites, recalled some of the problems encountered in the construction. At the Au Sable Forks site, the concrete for the control center was poured at 30-below zero and came out in lumps. Next spring when the forms were removed, it was full of "rat-holes," so the concrete was blown up and everything had to be repoured.

Inter-site communications systems, containing 208 miles of cable, were installed by New York Telephone to link the remote silos with their central command post in Plattsburgh known as the "Black Hanger." A liquid oxygen plant manned by 25 airmen was built to the northwest of the flight line at Plattsburgh Air Force Base. The oxygen and nitrogen for the missiles was stored in giant 28,000 gallon vacuum tanks at hundreds of degrees below zero. A fleet of trucks transported the liquids to the sites, to replenish the supply that, no matter how lightly sealed, was constantly dissipating into the atmosphere.

By the fall of 1964, Defense Secretary Robert S. McNamara began a phase-out of the first generation missiles, like the liquid-fueled Atlas and Titan I. The Titan II and Minuteman used more storable solid fuels, which did not evaporate constantly, and were much less expensive to maintain. Rather than convert much of the outdated hardware in the silos for use with the newer missiles, a command decision deactivated the Plattsburgh silos leaving our ground-based missile force entirely in the western United States. On April 14th, 1965 the last Atlas was trucked back to California for use in the Air Force's own space program. The 556th Strategic Missile Squadron was deactivated on June 25th, 1965. The silos had been operational for about 30 months.

The Air force took very little away with them, turning the silos over to the General Services Administration for disposal. A few were turned over to salvage companies who ripped out whatever they could of value. With the sump-pumps shut off, the silos began to fill with ground water, and today all but one are completely filled. Several were taken over by town highway departments, who used the two Quonset huts located at each site for garages and maintenance work.

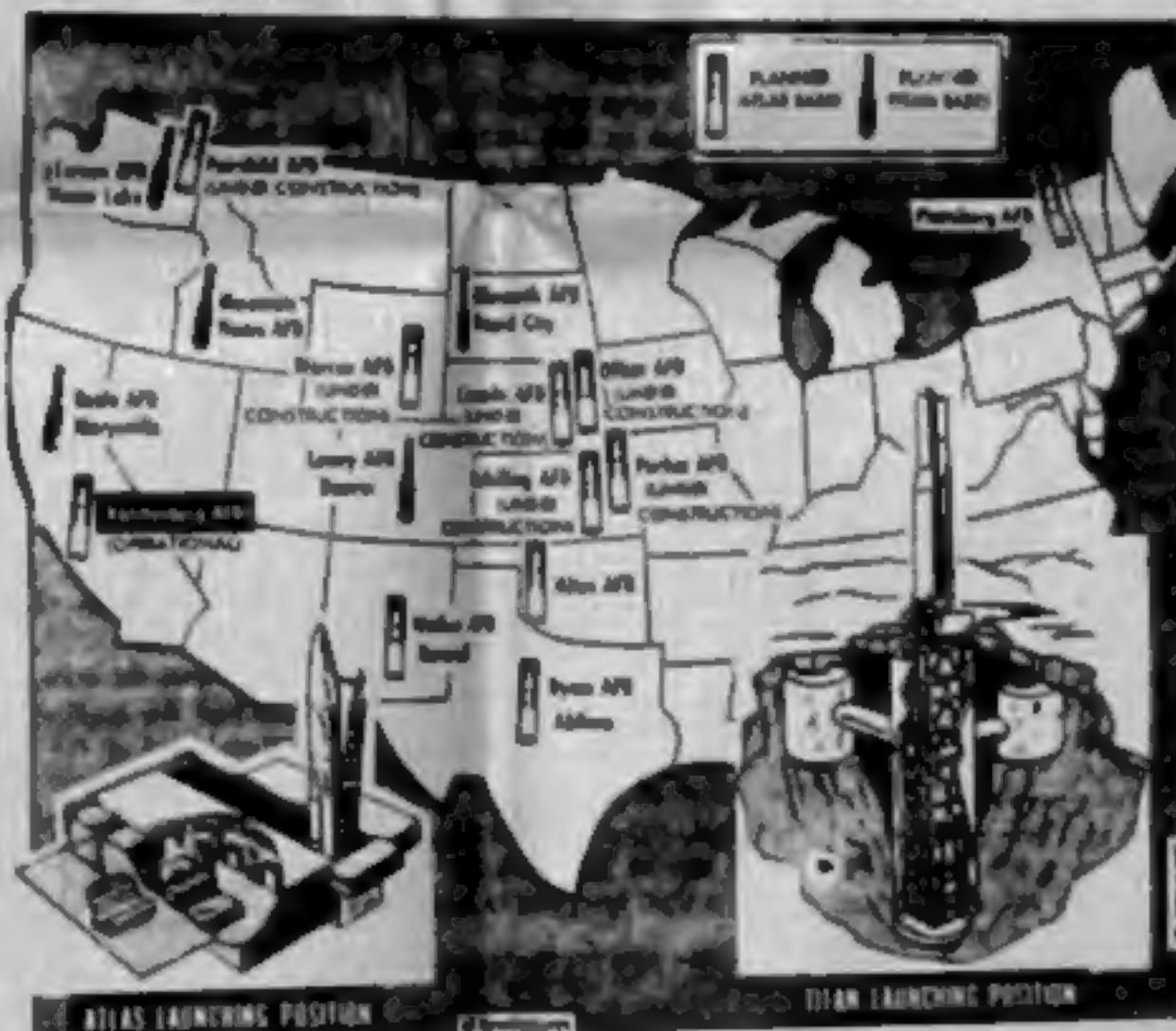
-R. D. White.  
Originally published in *Adirondack Life*, January/February 1988.  
Courtesy of the author and *Adirondack Life*



**Inside of Atlas missile silo**, Swanton, Vermont, 1986  
Courtesy of R. D. White



**ATLAS AND TITAN LAUNCHING POSITIONS** They are the sites selected to harbor America's super-weapons of the present and future—the Atlas and Titan intercontinental missiles. (The illustration at bottom left depicts an installation of Atlas that lifts a horizontally laid missile up for launching, after protective roof is opened. This particular installation type was commonly known as the "coffin").  
—Plattsburgh Press-Republican, Feb. 10, 1960



**Inside of Atlas missile silo**, Swanton, Vermont, 1986  
Courtesy of R. D. White

